What is a CT guided needle lung biopsy?

Respiratory Service
Medicine Group

This leaflet has been designed to give you important information about your procedure, and to answer some common queries that you may have.
What is a CT guided needle lung biopsy?

This is a procedure (test) where a tiny sample of tissue (biopsy) is taken from lungs for analysis. This helps doctors to find out more about the health of your lungs. A radiologist uses the computed tomography (CT) scan images from a CT scan to guide the needle to the area where the biopsy will be taken.

Why do I need this test?

Your consultant has suggested that you have this test after discussing your case with a radiologist. Your previous CT scan and tests may have shown something that your consultant would like to check further. Your consultant will explain why he or she thinks you need this test and how it will benefit you. You can then decide if you want to go ahead with the procedure or not.

What happens if I don’t have the test?

It may affect your treatment as your consultant may not have all the information needed for a diagnosis.

How do I prepare for the test?

It is important that you make a list of all medicines you are taking and bring it with you to your appointment. If you have any questions at all, please ask your hospital doctor or nurse. It may help to write down questions as you think of them so that you have them ready. It may also help to bring someone with you when you attend your appointment.

On the day of the test, please eat a light breakfast and continue taking any prescribed medication as normal unless you are on warfarin, aspirin or clopidogrel.

If you are on anticoagulants such as Warfarin or anti-platelets such aspirin or clopidogrel we recommend you discuss with your doctor as soon as possible the need to discontinue your treatment.

When you are admitted to the hospital a blood test will be taken to check that you do not have an increased risk of bleeding, if this has not been done in clinic.

You will need to stay in hospital after the biopsy for about four hours. Please bring an overnight bag with you to hospital as you may need to stay overnight. We will discuss this with you when your appointment is made.

What happens during the procedure?

We will ask you to lie on the CT scanner bed and explain the best position for taking the biopsy.

A scan will be taken using a small marker such as a paper clip or a blue-tack, which is placed on the outside of your skin. This marker shows up in the scan images so we can decide the best place to take the biopsy.

The skin is then cleaned with antiseptic solution and numbed with a local anaesthetic. A biopsy needle is carefully inserted into the lung to take the biopsy. In order to take a good sample, this part of the test may be repeated two to three times.
How long does the procedure take?
The procedure will take 30-45 minutes. This includes the set-up time and the time to take the biopsy.

Will it hurt?
The local anaesthetic used to numb the area may sting for a few seconds. You may also be aware of pressure from the biopsy needle as it takes the sample.

What happens afterwards?
We will take you back to the ward so you can rest and where you can eat and drink as usual. You will have a chest x-ray three to four hours after the biopsy. If this is normal you can go home. If there are any complications, we may ask you to stay in hospital overnight.

The results of the biopsy will not be available immediately and will be sent to the consultant in charge of your care. Your consultant will discuss the results with you at your next clinic appointment or by telephone if necessary.

What are the risks of the procedure?
All medical procedures carry some risk and the possibility that complications may arise. This procedure is considered low risk.

Sometimes a pneumothorax (collapsed lung) can occur. This happens when air leaks from the lung and becomes trapped between the lung and the chest wall. The risk of developing pneumothorax is about 1 in 5. If the air leak is large, a small tube (called a chest drain) may be inserted into the chest wall to suck out the trapped air. A small air leak will normally heal in a few days and does not need to be drained.

There is also a risk of the needle causing some bleeding in your lung. If this happens then you will cough up some blood. If you are coughing up a lot of blood, you will need to stay in hospital for observation, until it improves.

If you start coughing up a lot of blood, become short of breath or have severe chest pain when you have gone home you will need to come back to the hospital immediately.

It is possible that the results will not give your consultant enough information to make a diagnosis. If this happens we may need to repeat the CT guided needle lung biopsy or recommend an alternative procedure.

Female patients - If you are pregnant, or think you may be pregnant, please tell us before the procedure

Consent
We aim to make sure that every patient is fully informed about the risks and benefits of a procedure or treatment. Before you have the biopsy the radiologist will ask for your consent (permission) for the procedure. Please make sure that you understand the risks and benefits of the procedure and that it has been explained to you before you give your consent.

Please ask if you have any questions.

Can I drive after the biopsy?
No. Someone else must drive you home after the test or accompany you on public
transport. You should be able to drive again the next day if you feel well.

**Are there any problems flying in an aircraft after a biopsy?**

You should normally not fly for six weeks. If this is a problem then discuss it with your doctor.

**What about returning to work?**

If you work then you should be able to go back the day after your lung biopsy unless advised otherwise.

**Are there any alternatives?**

Some patients are suitable for a bronchoscopy (a long narrow flexible tube is passed through the nose or mouth to reach the lungs) or a surgical procedure to reach the lung tissue. Please ask your consultant if you would like to know more about the alternatives.

**Do you need further information?**

Please contact us if you have any questions about the procedure or your appointment.

**Scunthorpe General Hospital**

For Paula Clark – 01724 387741 (Dr Baugh)
Dawn Williams – 01724 387982 (Dr Yasso)

**For Diana, Princess of Wales Hospital**

Sandra Shepherd – 01472 302464 (Dr O’Flynn)
Carolyn Watson 01472 302572 (Dr Chan)
Jane Davis 01472 875515 (Dr Menon)

**Concerns and Queries**

If you have any concerns / queries about any of the services offered by the Trust, in the first instance, please speak to the person providing your care.

**For Diana, Princess of Wales Hospital**

Alternatively you can contact the Patient Advice and Liaison Service (PALS) on (01472) 875403 or at the PALS office which is situated near the main entrance.

**For Scunthorpe General Hospital**

Alternatively you can contact the Patient Advice and Liaison Service (PALS) on (01724) 290132 or at the PALS office which situated on C Floor.

Alternatively you can email: nlg-tr.PALS@nhs.net

**Confidentiality**

Information on NHS patients is collected in a variety of ways and for a variety of reasons (e.g. providing care and treatment, managing and planning the NHS, training and educating staff, research etc.).

Everyone working for the NHS has a legal duty to keep information about you confidential. Information will only ever be shared with people who have a genuine need for it (e.g. your GP or other professionals from whom you have been receiving care) or if the law requires it, for example, to notify a birth.

Please be assured however that anyone who receives information from us is also under a legal duty to keep it confidential.
Zero Tolerance - Violent, Threatening and Abusive Behaviour

The Trust and its staff are committed to providing high quality care to patients within the department. However, we wish to advise all patients / visitors that the following inappropriate behaviour will not be tolerated:

- Swearing
- Threatening / abusive behaviour
- Verbal / physical abuse

The Trust reserves the right to withdraw from treating patients whom are threatening / abusive / violent and ensuring the removal of those persons from the premises.

All acts of criminal violence and aggression will be notified to the Police immediately.

Risk Management Strategy

The Trust welcomes comments and suggestions from patients and visitors that could help to reduce risk.

Perhaps you have experienced something whilst in hospital, whilst attending as an outpatient or as a visitor and you felt at risk.

Please tell a member of staff on the ward or in the department you are attending / visiting.

Moving & Handling

The Trust operates a Minimal Lifting Policy, which in essence means patients are only ever lifted by nursing staff in an emergency situation.

Patients are always encouraged to help themselves as much as possible when mobilising, and if unable to do so, equipment may be used to assist in their safe transfer.

If you have any questions regarding moving and handling of patients within the Trust, you may speak to any member of the nursing staff, the designated keyworker within the department or the Trust Moving & Handling Coordinator.

Northern Lincolnshire and Goole Hospitals NHS Foundation Trust
Diana Princess of Wales Hospital
Scartho Road
Grimsby
01472 874111

Scunthorpe General Hospital
Cliff Gardens
Scunthorpe
01724 282282

Goole & District Hospital
Woodland Avenue
Goole
01405 720720
www.nlgnhs.uk

Date of issue: June 2013
Review Period: June 2016
Author: Consultant Respiratory Physician
IFP-766
© NLGHT 2013